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10/517,235	05/26/2005	Erling Vangedal-Nielsen	606-86-PCT-PA	4384
22145	7590	08/20/2009	EXAMINER	
KLEIN, O'NEILL & SINGH, LLP			WOMACK, DOMINIQUE A	
43 CORPORATE PARK				
SUITE 204			ART UNIT	PAPER NUMBER
IRVINE, CA 92606			1794	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/517,235	VANGEDAL-NIELSEN, ERLING	
	Examiner	Art Unit	
	DOMINIQUE WOMACK	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 28 April 2009.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 52-78 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 52-78 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 07 December 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Response to Amendments

1. Claims 52-78 are pending. Claims 1-51 are canceled. Claims 52-78 are newly added.

Applicant's amendments filed on 4/28/2009 have been acknowledged.

Rejections

2. Any rejections and/or objections made in the previous office action, dated October 28, 2008, and not repeated below are hereby withdrawn.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. **Claims 52, 54-68 and 71-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Folkmar [US Pat App No. 2002/0153468] in view of Vangedal-Nielsen [US Pat No. 6,322,044] further in view of Cederroth [US Pat No. 5,393,032].**

6. **Regarding claim 52,** Folkmar discloses a bag comprising a pair of mutually confronting bag walls which are generally identical and generally rectangular in shape ([0026]). The lower margin and side margins of the walls are joined together by a continuously welded seam ([0026]). Folkmar discloses that the bag is typically made from thin plastic foil ([0002]). The bag further comprises an internal seal disposed within or adjacent to the outlet opening ([0012]). The internal seal is provided to isolate the fill chamber from the interior of the bag (abstract). The walls of the bag are joined together at transversely spaced apart spot weds which are disposed adjacent to upper margin. Walls are additionally joined together at spot welds which together form an open grid within the interior of the bag, and which define a plurality of interconnected compartments ([0028], Figure 1). The welds are interpreted to read on the claim limitation "separate joints". The bag produces at least six standard width ice cubes across. When a liquid is frozen within the bag to form cubes within the compartments, welds may be ruptured and the cubes will be free within the confines of the bag ([0031]).

7. **Regarding claim 52,** Folkmar fails to disclose two-sheet shaped foil layers defining a surface area of at least 75 cm², an inner volume of at least 50 cm³ when the inner chamber is inflated to a maximum inflation at pressure of at least 0.5 m water column pressure, and that freezable material is contained in each of the compartments as to fill between 80% and 90% of said inner volume in a non-frozen condition.

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8. Vangedal-Nielsen discloses an ice cube bag comprising two sheet-shaped foil layers having substantially identical geometry configurations and defining an outer periphery (col. 36, lines 23-26).

9. **Regarding claim 52,** Vangedal-Nielsen discloses that the length of the foil layer=38.5 cm and the width of the foil layer=18cm and since surface area=length x width, the two sheet-shaped foil layers each define a surface area of 693 cm² (col. 34, lines 46-50). The ice bag was distended (inflated) as the ice cube bag was filled. This distention was necessary to test the bag to see what maximum force can be applied to the structure of the bag. It was found that the bag can resist a pressure of 0.9 m water column pressure (col. 35, lines 6-30). The ice cube bag may hold a liquid volume of 480 g which is equivalent to a volume of 480 cm³ (col. 3, lines 39-42). It is understood that the liquid volume is only contained in the inner volume of ice cube bag. The ice cube bag of Vangedal-Nielsen has a bigger inner volume and is easier and quicker to fill (col. 3, lines 50-53).

10. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to use dimensions and structure of the Vangedal-Nielsen in the freezer bag of Folkmar in order to provide a large ice cube bag. One of ordinary skill in the art would be motivated to provide a large ice cube bag because the bag of Vangedal-Nielsen is easier and quicker to fill and has been shown to function correctly when tested.

11. **Regarding claim 52,** Folkmar in view of Vangedal-Nielsen fails to disclose that freezable material is contained in each of the compartments as to fill between 80% and 90% of said inner volume in a non-frozen condition.

12. Cederroth relates to a covered ice tray.

13. Cederroth discloses that some space must be left in the cavity of the ice tray to provide for the expansion of the water that occurs during the freezing process (col. 8, lines 27-34).

Cederroth discloses that approximately 6% of the cavity must not be filled with liquid (col. 8, lines 27-34).

14. Regarding claim 52, it would have been obvious to one of ordinary skill in the art at the time of the invention for the freezable material of Folkmar in view of Vangedal-Nielsen to be contained in each of the compartments to fill between 80% and 90% of said inner volume in a non-frozen condition because “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). See MPEP § 2114.05 II. In the instant case, Cederroth discloses that some space must be left in the cavity of the ice tray to provide for the expansion of the water that occurs during the freezing process.

15. **Regarding claim 54,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses that the water can be added to the freezer bags (Folkmar, [0005]).

16. **Regarding claim 55,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses a pre-filled ice cube tray that has cavities designed to form ice cubes. These cavities have a volume of 27mm by 27 mm by 27 mm or 19683mm^3 or 19.683 cm^3 (Cederroth, col. 5, lines 23-28). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to create a pre-formed cavity having a volume less than 25cm^3 in order to have ice cubes of a uniform size. One of ordinary skill in the art would be motivated to add the pre-formed cavity having a volume less than 25cm^3 to the ice cube bag of Folkmar in view of Vangedal-Nielson because the

uniform size of the ice cube compartments ensures each ice cube will be able to fit into normal size drinking glasses (Cederroth, col. 5, lines 22-25).

17. **Regarding claim 56,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses an ice cube bag that may be "produced from a plastics foil material, especially polyethylene, preferably LDPE or HDPE or another glueable or weldable foil material, preferably plastics or polymer foil material or aluminum foil material or combinations of such foil materials, e.g. plastics coated aluminum foil material" (Vangedal-Nielsen, col. 5, lines 13-19).

18. **Regarding claim 57,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses an ice cube bag that has more than 2 ice cube compartments (Folkmar, Fig. 1).

19. **Regarding claim 58,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses an ice cube bag wherein said ice cube compartments are separated into separate sub chambers (Vangedal-Nielson, claim 13).

20. **Regarding claim 59,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses an ice cube bag where the peripheral and separate joints are all constituted by glueings or molding (Vangedal-Nielson, claim 7).

21. **Regarding claim 60,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses an ice cube bag wherein the peripheral joint and separate joints are welded (Folkmar, [0017] & [0028])

22. **Regarding claim 61,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses an ice cube bag comprising individual joints that have a configuration selected from the group consisting of circles, ellipses, line-segments, triangles, rectangles, squares, polygons, and arbitrary convex or concave contours (Vangedal-Nielsen: claim 8).

23. **Regarding claim 62,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses an ice cube bag wherein the separate joints define a plurality of central non-joined areas (Folkmar, [0028]).
24. **Regarding claims 63-64,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses a bag comprising a pair of mutually confronting bag walls which are generally identical and generally rectangular in shape (Folkmar, [0026]).
25. **Regarding claims 65-66,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses an ice bag that can be made of two foils of the same or different type or different thickness (Vangedal-Nielsen: col. 36, lines 17-21) It is noted that the reference recites the word "to" which is a typo. It is understood that the word should be "two" since the invention is directed to an ice bag made of two sheet-shaped foil layers (Vangedal-Nielsen: see claim 1).
26. **Regarding claim 67,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses an ice cube tray that has pre-formed cavities (Cederroth: col. 5, lines 12-15) and has a cover. The cover is thinner than the ice cube tray (Cederroth: col. 5 lines 62-64 & col. 6, lines 55-60).
27. It would have been obvious to one of ordinary skill in the art to add a cavity recess to one side of the ice cube bag of Folkmar in view of Vangedal-Nielson and in order to have preformed compartments for the freezable material. One of ordinary skill in the art would be motivated to have preformed cavities because the pre-shaping of the ice cube compartment ensures each ice cube will be able to fit into normal size drinking glasses (Cederroth: col. 5, lines 22-25).
28. **Regarding claim 68,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses an ice cube bag comprising an incision at the outer periphery of the foil layers, the incision being

configured to indicate a tearing point for the ice cube bag (Vangedal-Nielsen: col. 21, lines 23-40; Figure 10).

29. **Regarding claim 71,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses an ice cube bag with individual joints that establish a connection between two-sheet shaped foil layers with such a joining strength and with such a limited area of extension that said individual join is not broken when said foil layers are exposed to a separation force, but provides a tearing apart of perforation in one of the said foil layers along the periphery of said individual joints (Vangedal-Nielsen, col. 38, lines 8-15).

30. **Regarding claim 72,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses an ice cube bag that has individual joints which are positioned in such a mutual distance that when one of said foil layers is torn apart or perforated, said individual joints provide directions for a perforation line in one of said foil layers (Vangedal-Nielsen, col. 38, lines 17-20).

31. **Regarding claim 73,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses an ice cube bag wherein the factor calculated as the area of one of said individual joints expressed in square millimeters divided by the circumference or perimeter of the same joint measure in millimeters lies within the range 0.025 mm to 0.5 mm (Vangedal-Nielsen: col. 38, lines 26-30).

32. **Regarding claim 74,** Folkmar in view of Vangedal-Nielsen and Cederroth discloses an ice cube bag wherein each of said individual joints has an area extension corresponding to the area of a circle having a diameter between 0.1mm and 5mm.

33. **Claim 53 is rejected under 35 U.S .C. 103(a) as being unpatentable over Folkmar [US Pat App No. 2002/0153468] in view of Vangedal-Nielsen [US Pat No. 6,322,044] further in view of Cederroth [US Pat No. 5,393,032] and Tadlock et al. [US Pat No. 6,153,105].**

34. Folkmar in view of Vangedal-Nielsen and Cederroth is relied upon as above with respect to claim 52.

35. Folkmar in view of Vangedal-Nielsen and Cederroth fail to disclose the use of sterilized water as the freezable material.

36. Tadlock relates to an ice maker treatment system.

37. Tadlock discloses that the water used to produce ice should be disinfected through treatment technologies (col. 3, lines 1-6). Tadlock also discloses that the process of treating the water used in the process of making ice greatly reduces the chance of contaminated ice (col. 6, lines 8-16).

38. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to use disinfected water in the ice cube bag of Folkmar in view of Vangedal-Nielsen and Cederroth in order to have ice formed from disinfected water. One of ordinary skill in the art would be motivated to have ice formed from disinfected water because using disinfected water greatly reduces the chance of contaminated ice.

39. **Claims 69-70 are rejected under 35 U.S .C. 103(a) as being unpatentable over Folkmar [US Pat App No. 2002/0153468] in view of Vangedal-Nielsen [US Pat No.**

6,322,044] further in view of Cederroth [US Pat No. 5,393,032] and Bell [US Pat No. 5,709,479].

40. Folkmar in view of Vangedal-Nielsen and Cederroth is relied upon as above with respect to claim 52.

41. **Regarding claims 69-70,** Folkmar in view of Vangedal-Nielsen and Cederroth fail to disclose an ice cube bag with an extension formed into a gripping flap, said gripping flap comprising an aperture for the manipulation of the ice cube bag.

42. Bell discloses a sealed pouch for flowable material where the two sheets that made up the pouch are extended above a seal (Fig. 6, #63) and an hole is cut in the extension to serve as a handle for carrying the pouch (col. 4, lines 42-44). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the extension and hole of Bell to the ice cube bag of Folkmar in view of Vangedal-Nielson and Cederroth in order create a handle in the ice cube bag. One of ordinary skill in the art would be motivated to include a handle because a handle would allow for easy manipulation of the flowable material inside the bag as shown by Bell (col. 4, lines 47-55).

43. **Claims 75-76 and 78 are rejected under 35 U.S .C. 103(a) as being unpatentable over Folkmar [US Pat App No. 2002/0153468] in view of Vangedal-Nielsen [US Pat No. 6,322,044] further in view of Cederroth [US Pat No. 5,393,032] and Moore [US Pat App No. 2002/0050150].**

44. Folkmar in view of Vangedal-Nielsen and Cederroth is relied upon as above with respect to claim 52.

45. Folkmar in view of Vangedal-Nielsen and Cederroth fail to teach enclosing the pre-filled ice cube bags in an external gas proof packaging which is air filled.

46. Moore discloses an external packaging for disposable packages designed to hold frozen substances (¶ 43). The external packaging is made from a polymeric material, such as polyethylene and the package is sealed (¶ 43 & Fig. 6). The external packing contains air (Fig. 8). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the gas proof packaging of Moore to the ice cube bag of Folkmar in view of Vangedal-Nielson and Cederroth in order to package the pre-filled ice cube bags. One of ordinary skill in the art would be motivated to include gas proof packaging of Moore as a exterior package for the ice cube bag of Folkmar in view of Vangedal-Nielson and Cederroth because the gas proof packaging keeps the freezable material fresh before consumption by protecting the freezable material from contamination.

47. **Claim 77 is rejected under 35 U.S.C. 103(a) as being unpatentable over Folkmar [US Pat App No. 2002/0153468] in view of Vangedal-Nielsen [US Pat No. 6,322,044] further in view of Cederroth [US Pat No. 5,393,032], Moore [US Pat App No. 2002/0050150], and Howard et al. [US Pat No. 5,332,587].**

48. Folkmar in view of Vangedal-Nielsen, Cederroth and Moore is relied upon as above with respect to claim 75.

49. Folkmar in view of Vangedal-Nielsen, Cederroth and Moore fail to teach a sealed gas-proof package that is evacuated.

50. Howard et al. discloses an embodiment of a package for pasta in which the pasta is contained in an evacuated condition in a pouch made of plastic materials (col. 9, lines 49-52 and lines 65-66). It would have been obvious to one of ordinary skill in the art, at the time of the invention to evacuate the into gas proof packaging of Folkmar in view of Vangedal-Nielsen, Cederroth and Moore, as taught by, Howard et al. in order to package the ice cube bags under a vacuum. One of ordinary skill in the art would be motivated to evacuate the gas-proof packaging of Folkmar in view of Vangedal-Nielsen, Cederroth and Moore because Howard et al. shows that using a sealed bag in an evacuated condition helps create a package with shelf-stability and extended life (col. 9, lines 33-40).

Response to Arguments

51. Applicant's arguments, see pages 15-16, filed April 28, 2009, with respect to the rejection(s) of claim(s) 1 under Vangedal-Nielsen '044 in view of Vangedal-Nielsen '285 and Shing-Hsiung '891 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Folkmar in view of Vangedal-Nielsen and Cederroth.

51. Applicant's argument that Vangedal-Nielsen '044 does not permit expansion of multi-compartment ice cube bags has been considered but is not considered to be persuasive. The

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material used in the ice bag of Vangedal-Nielsen '044 is the same as the claimed material of the instant application. Therefore, Vangedal-Nielsen '044 must be capable of expansion.

52. Applicant's arguments with respect to Shing-Hsiung have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

53. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOMINIQUE WOMACK whose telephone number is (571) 270-7366. The examiner can normally be reached on Monday-Thursday, 9:30am-6:00pm.

54. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

55. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. W./
Dominique Womack
Examiner, Art Unit 1794

17 August 2009

/JENNIFER MCNEIL/
Supervisory Patent Examiner, Art Unit 1794